

REMARKS/ARGUMENTS

Initially, Applicant would like to thank Examiner Ortiz for granting an interview and for his time spent in the interview.

Claims 7-21 are present in the application. Independent claims 7, 12, 17 and 20 are amended to include language discussed at the interview to structurally distinguish over the applied prior art.

Claims 7, 8, 12, 14, 15 and 17 are rejected as unpatentable over TAKIAR et al. 5,502,289 in view of SHINOHARA 5,238,878. This rejection is respectfully traversed.

Independent claim 7 is amended to recite a wiring layer between a first and second semiconductor chip, the wiring layer including a polyimide tape having a copper foil layer therebetween.

As disclosed on page 5, lines 1-3 of the present application, the wiring layer is a polyimide tape 7 with a copper foil layer interposed therein. Accordingly, the copper foil is between the layers of polyimide tape 7.

As discussed in the interview, TAKIAR et al. teach a polyimide substrate. However, electrical "strip" contact 68 is on top of the substrate (polyimide) as seen in Figure 2, for example.

SHINOHARA is only cited for the teaching of forming a polyimide film by a spin coating method. SHINOHARA does not teach or suggest a copper foil layer between polyimide layers.

The above noted feature is missing from each of the references, is absent from the combination and thus is not obvious to one having ordinary skill in the art. Accordingly, reconsideration and allowance of claim 7 are respectfully requested. Claim 8 depends from claim 7 is also believed patentable over the cited prior art.

Independent claim 12 recites that the wiring layer includes a conductor laminated between polyimide layers. As disclosed on page 7, lines 16-19, for example, a wiring layer 8 formed by laminating polyimide and aluminum layers is provided on the semiconductor chip instead of the polyimide tape 7.

The comments above regarding claim 7 are equally applicable to claim 12. Claims 14 and 15 depend from claim 12 and are also believed patentable over the cited prior art.

Claim 17 recites that the wiring layer includes an inner layer conductor traversing the wiring layer. As disclosed on page 6, lines 18-21, relaying pads are electrically connected by a wiring 72 in the inner layer of a polyimide tape 7. Accordingly, the wiring layer is the inner layer and a polyimide tape is the outer layer.

As noted above, the electrically conductive "strip" contact 68 of TAKIAR et al. is an outer layer, not an inner layer conductor traversing the wiring layer as recited in claim 17. As further noted above, SHINOHARA does not disclose a wiring layer. Accordingly, reconsideration and allowance of claim 17 are respectfully requested.

Claims 9, 13 and 19 are rejected as unpatentable over TAKIAR et al. in view of SHINOHARA and further in view of BEILSTEIN, Jr. et al. 5,567,654. This rejection is respectfully traversed.

BEILSTEIN, Jr. et al. is only cited for the teaching of a connection wire for connecting first and second pads to each other. BEILSTEIN, Jr. et al. do not teach or suggest a wiring layer including a polyimide tape having a copper foil layer therebetween as recited in claim 7, or a wiring layer including a conductor laminated between polyimide layers as recited in claim 12 or an inner layer conductor traversing a wiring layer as recited in claim 17. As set forth above, TAKIAR et al. in view of SHINOHARA do not teach or suggest what is recited in claims 7, 12 and 17. Since claims 9, 13 and 19 depend from claims 7, 12 and 17 respectively and further define the invention, the combination of references would not render obvious claims 9, 13 and 19.

Claims 10, 11, 16, 18 and 20 are rejected as unpatentable over TAKIAR et al. in view of SHINOHARA and further in view of TOKUDA et al. 5,870,289. This rejection is respectfully traversed.

TOKUDA et al. is only cited for the teaching of a via hole on the wiring layer and connected to a bonding pad of a semiconductor chip. TOKUDA et al. do not disclose or suggest what is recited in claims 7, 12, and 17. As noted above, TAKIAR et al. and SHINOHARA do not teach or suggest what is recited in claims 7, 12 and 17. Since claims 10, 11, 16 and 18 depend from claims 7, 12 and 17 respectively, and further define the invention, the combination of references would not render obvious claims 10, 11, 16 and 18.

Claim 20 recites a wiring layer between first and second semiconductor chips, and a wiring layer including a polyimide tape having a copper foil layer therebetween. The comments above regarding claim 7 are equally applicable to claim 20 as to TAKIAR et al. in view of SHINOHARA. As noted above, TOKUDA et al. do not teach or suggest what is recited in claim 7. Accordingly, the combination of references would not render obvious claim 20.

Claim 21 is rejected as unpatentable over TAKIAR et al. in view of SHINOHARA and further in view of TOKUDA et al. and BEILSTEIN, Jr. et al.

As noted above BEILSTEIN, Jr. et al. is only cited for the teaching of a connection wire for connecting first and second bonding pads to each other. BEILSTEIN, Jr. et al. do not teach or suggest a wiring layer including a polyimide tape having a copper foil layer therebetween as recited in claim 20. As set forth above, TAKIAR et al. in view of SHINOHARA and TOKUDA et al. do not teach or suggest what is recited in claim 20. Since claim 21 depends from claim 20, and further defines the invention, the combination of references would not render obvious claim 21.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

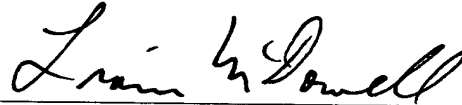
The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

Application No. 09/939,761
Amdt. dated June 27, 2003
Reply to Office Action of April 1, 2003
Docket No. 8041-1011

overpayment to Deposit Account No. 25-0120 for any additional
fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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